NOTIFICATION OF ADDENDUM

ADDENDUM NO. 2

DATED 5/28/2010

Control	**0320-06-004**
Project	**STP 2010(922)RGS**
Highway	**LP 363**
County	**BELL**

Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an adendum notification which details the changes and the respective proposal pages which were added and/ or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped “This Proposal Issued for Informational Purposes.”

You are required to acknowledge receipt of this addendum on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

04/99

SUBJECT: PLANS AND PROPOSAL ADDENDUMS
PROJECT: STP 2010(922)RGS CONTROL: 0320-06-004
COUNTY: BELL
LETTING: 06/04/2010
REFERENCE NO: 0526

PROPOSAL ADDENDUMS

_ PROPOSAL COVER
X BID INSERTS (SH. NO.: 4,11,12,13))
X GENERAL NOTES (SH. NO.: BB,CC)
)
X SPEC LIST (SH. NO.: 2,3,4))
X SPECIAL PROVISIONS:
ADDED: 740---001

DELETED:

_ SPECIAL SPECIFICATIONS:
ADDED:

DELETED:

X OTHER: Plans 11M,11N,12,12B

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

Bid Inserts	Page 4 Revised quantity for Item 432-2002.
	Page 11 Added base bid indicator under ALT column for Item 678-2001.
	Page 12 Added four bid items 730-2113,734-2002,738-2224, and 740-2005.
	Page 13 List shifts due to additions.
General Notes	Sheet BB Item 740, the first paragraph is revised.
	Sheet CC Test shift due to revised information above.
Spec List	Page 2 Add Items 730, 734, 738, and 740. List shifts.
	Page 3 List shift due to added items.
	Page 4 Add Special Provision 740---001.
Plans	Sheet 11M Item 740, first paragraph revised. Text shift.
	Sheet 11N Text shift due to revision.
	Sheet 12 revised quantity for Item 432-2002.
	Sheet 12B Added base bid indicator under ALT column for Item 678-2001.
	Added Items 730-2113,734-2002,738-2224,740-2005.

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	100	2002	002	PREPARING ROW DOLLARS and CENTS	STA	51.000	1
	105	2023		REMOVING STAB BASE AND ASPH PAV (5") DOLLARS and CENTS	SY	14,925.000	2
	110	2001		EXCAVATION (ROADWAY) DOLLARS and CENTS	CY	56,717.000	3
	110	2002		EXCAVATION (CHANNEL) DOLLARS and CENTS	CY	200.000	4
	132	2006		EMBANKMENT (FINAL)(DENS CONT)(TY C) DOLLARS and CENTS	CY	449,403.000	5
	160	2006		FURNISHING AND PLACING TOPSOIL (3") DOLLARS and CENTS	SY	87,865.000	6
	164	2039	002	DRILL SEEDING (PERM) (URBAN) (CLAY) DOLLARS and CENTS	SY	87,865.000	7
	164	2047	002	STRAW/HAY MLCH SEED(TEMP)(WARM) DOLLARS and CENTS	SY	43,932.000	8
	164	2049	002	STRAW/HAY MLCH SEED(TEMP)(COOL) DOLLARS and CENTS	SY	43,932.000	9
	168	2001		VEGETATIVE WATERING DOLLARS and CENTS	MG	713.000	10
	169	2001	002	SOIL RETENTION BLANKETS (CL 1) (TY A) DOLLARS and CENTS	SY	117,729.000	11

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
1	275	2001	002	CEMENT DOLLARS and CENTS	TON	847.000	12
1	276	2277		CMT TRT(PLNT MX)(CL M)(TY A)(GR 4) 10" DOLLARS and CENTS	SY	45,619.000	13
	305	2046		SALV, HAUL & STKPL RCL ASPH PV (10") DOLLARS and CENTS	SY	2,769.000	14
1	316	2363	016	AGGR (TY-PD GR-4 OR TY-PL GR-4)(SAC-B) DOLLARS and CENTS	CY	365.000	15
1	316	2701	016	ASPH(AC-15P,AC-20XP,AC10-2TR,AC15-5TR) DOLLARS and CENTS	GAL	16,424.000	16
1	341	2011	024	D-GR HMA(QCQA) TY-B PG64-22 DOLLARS and CENTS	TON	12,177.000	17
1	341	2050	024	D-GR HMA(QCQA) TY-C PG70-22 DOLLARS and CENTS	TON	6,714.000	18
1	346	2014		STONE-MTRX-ASPH SMA-D SAC-A PG76-22 DOLLARS and CENTS	TON	4,969.000	19
	351	2008		FLEXIBLE PAVEMENT STRUCTURE REPAIR(12") DOLLARS and CENTS	SY	1,000.000	20
	400	2002		STRUCT EXCAV (BOX) DOLLARS and CENTS	CY	1,325.000	21

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	400	2003		STRUCT EXCAV (PIPE) DOLLARS and CENTS	CY	438.000	22
	400	2005		CEM STABIL BKFL DOLLARS and CENTS	CY	1,214.000	23
	400	2006		CUT & RESTORING PAV DOLLARS and CENTS	SY	108.100	24
	402	2001		TRENCH EXCAVATION PROTECTION DOLLARS and CENTS	LF	935.000	25
	416	2004		DRILL SHAFT (36 IN) DOLLARS and CENTS	LF	1,490.000	26
	420	2003	002	CL C CONC (ABUT) DOLLARS and CENTS	CY	164.000	27
	420	2004	002	CL C CONC (BENT) DOLLARS and CENTS	CY	264.000	28
	420	2033	002	CL S CONC (APPR SLAB) DOLLARS and CENTS	CY	296.000	29
	420	2064	002	CL A CONC (PLUG) DOLLARS and CENTS	EA	1.000	30
	422	2001		REINF CONC SLAB DOLLARS and CENTS	SF	45,500.000	31
	423	2005		RETAINING WALL (TEMP WALL) DOLLARS and CENTS	SF	9,455.000	32

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	425	2069	001	PRESTR CONC GIRDER (TX62) DOLLARS and CENTS	LF	5,577.000	33
	428	2001	001	CONC SURF TREAT (CLASS I) DOLLARS and CENTS	SY	5,185.000	34
	432	2001		RIPRAP (CONC)(4 IN) DOLLARS and CENTS	CY	722.000	35
	432	2002		RIPRAP (CONC)(5 IN) DOLLARS and CENTS	CY	62.400	36
	432	2040		RIPRAP (MOW STRIP)(5 IN) DOLLARS and CENTS	CY	8.000	37
	432	2041		RIPRAP (STONE COMMON)(DRY)(18 IN) DOLLARS and CENTS	CY	69.000	38
	450	2062	001	RAIL (TY SSCB) DOLLARS and CENTS	LF	350.000	39
	450	2063	001	RAIL TYPE (TY T401) DOLLARS and CENTS	LF	740.000	40
	454	2001		SEALED EXPANSION JOINT (4 IN)(SEJ-A) DOLLARS and CENTS	LF	260.000	41
	462	2010		CONC BOX CULV (6 FT X 3 FT) DOLLARS and CENTS	LF	122.000	42
	462	2023		CONC BOX CULV (8 FT X 8 FT) DOLLARS and CENTS	LF	128.000	43

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	462	2034		CONC BOX CULV (10 FT X 10 FT) DOLLARS and CENTS	LF	1,000.000	44
	464	2003	003	RC PIPE (CL III)(18 IN) DOLLARS and CENTS	LF	269.000	45
	464	2005	003	RC PIPE (CL III)(24 IN) DOLLARS and CENTS	LF	1,280.000	46
	464	2009	003	RC PIPE (CL III)(36 IN) DOLLARS and CENTS	LF	407.000	47
	465	2003	001	INLET (COMPL)(TY H) DOLLARS and CENTS	EA	5.000	48
	465	2105	001	MANH (COMPL)(TY M)(MOD) DOLLARS and CENTS	EA	8.000	49
	465	2106	001	INLET EXT (TYII) DOLLARS and CENTS	EA	14.000	50
	466	2020		WINGWALL (FW-0)(HW=4 FT) DOLLARS and CENTS	EA	2.000	51
	466	2035		WINGWALL (FW-S)(HW=5 FT) DOLLARS and CENTS	EA	1.000	52
	466	2042		WINGWALL (FW-S)(HW=12 FT) DOLLARS and CENTS	EA	2.000	53
	467	2222		SET (TY II)(18 IN)(RCP)(4:1)(C) DOLLARS and CENTS	EA	1.000	54

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	467	2224		SET (TY II)(24 IN)(RCP)(4:1)(C) DOLLARS and CENTS	EA	1.000	55
	467	2286		SET (TY II)(18 IN)(RCP)(6:1)(P) DOLLARS and CENTS	EA	4.000	56
	479	2002		ADJ INLETS DOLLARS and CENTS	EA	2.000	57
	496	2001		REMOV STR (BOX CULVERT) DOLLARS and CENTS	EA	1.000	58
	496	2002		REMOV STR (INLET) DOLLARS and CENTS	EA	7.000	59
	496	2004		REMOV STR (SET) DOLLARS and CENTS	EA	7.000	60
	496	2005		REMOV STR (WINGWALL) DOLLARS and CENTS	EA	4.000	61
	496	2006		REMOV STR (HEADWALL) DOLLARS and CENTS	EA	6.000	62
	496	2007		REMOV STR (PIPE) DOLLARS and CENTS	LF	588.000	63
	500	2001	005	MOBILIZATION DOLLARS and CENTS	LS	1.000	64

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	502	2001	033	BARRICADES, SIGNS AND TRAFFIC HANDLING DOLLARS and CENTS	MO	24.000	65
	506	2002	011	ROCK FILTER DAMS (INSTALL) (TY 2) DOLLARS and CENTS	LF	210.000	66
	506	2003	011	ROCK FILTER DAMS (INSTALL) (TY 3) DOLLARS and CENTS	LF	80.000	67
	506	2009	011	ROCK FILTER DAMS (REMOVE) DOLLARS and CENTS	LF	290.000	68
	506	2016	011	CONSTRUCTION EXITS (INSTALL) (TY 1) DOLLARS and CENTS	SY	399.000	69
	506	2019	011	CONSTRUCTION EXITS (REMOVE) DOLLARS and CENTS	SY	399.000	70
	506	2024	011	BACKHOE WORK (EROSION & SEDM CONT) DOLLARS and CENTS	HR	20.000	71
	506	2027	011	BLADING WORK (EROSION & SEDM CONT) DOLLARS and CENTS	HR	20.000	72
	506	2031	011	SANDBAGS FOR EROSION CONTROL DOLLARS and CENTS	EA	50.000	73
	506	2034	011	TEMPORARY SEDIMENT CONTROL FENCE DOLLARS and CENTS	LF	7,821.000	74

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	508	2002		CONSTRUCTING DETOURS DOLLARS and CENTS	SY	2,769.000	75
	512	2014	002	PORT CTB (DES SOURCE)(SNGL SLP)(TY 2) DOLLARS and CENTS	LF	1,000.000	76
	512	2032	002	PORT CTB (STKPL)(SNGL SLP) (TY 2) DOLLARS and CENTS	LF	1,000.000	77
	514	2005	002	PERM CONC TRF BARR (SGL SLP)(TY 2)(42") DOLLARS and CENTS	LF	1,220.000	78
	529	2006		CONC CURB (MONO) (TY II) DOLLARS and CENTS	LF	129.000	79
	529	2010		CONC CURB AND GUTTER (TY II)(REINF) DOLLARS and CENTS	LF	644.000	80
	530	2010		DRIVEWAYS (CONC) DOLLARS and CENTS	SY	1,498.000	81
	540	2002	015	MTL W-BEAM GD FEN (STEEL POST) DOLLARS and CENTS	LF	405.000	82
	540	2011	015	MTL BEAM GD FEN TRANS (THRIE-BEAM) DOLLARS and CENTS	EA	2.000	83
	542	2001		REMOVING METAL BEAM GUARD FENCE DOLLARS and CENTS	LF	380.000	84
	544	2001		GUARDRAIL END TREATMENT (INSTALL) DOLLARS and CENTS	EA	6.000	85

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	ITEM NO	DESC CODE	S.P. NO.				
	544	2003		GUARDRAIL END TREATMENT (REMOVE) DOLLARS and CENTS	EA	4.000	86
	545	2001		CRASH CUSH ATTEN (INSTL) DOLLARS and CENTS	EA	2.000	87
	545	2023		CRASH CUSH ATTEN (MOVE&RESET)(REACT)(N) DOLLARS and CENTS	EA	1.000	88
	545	2024		CRASH CUSH ATTEN (REMOVE)(REACT)(N) DOLLARS and CENTS	EA	1.000	89
	644	2004		INS SM RD SN SUP&AM TY 10BWG(1) SA(T) DOLLARS and CENTS	EA	3.000	90
	644	2007		INS SM RD SN SUP&AM TY 10BWG(1) SB(P) DOLLARS and CENTS	EA	1.000	91
	644	2022		INS SM RD SN SUP&AM TY S80(1) SA(P) DOLLARS and CENTS	EA	1.000	92
	644	2025		INS SM RD SN SUP&AM TY S80(1) SA(T) DOLLARS and CENTS	EA	4.000	93
	644	2027		INS SM RD SN SUP&AM TY S80(1) SA(U) DOLLARS and CENTS	EA	3.000	94
	644	2048		INS SM RD SN SUP&AM TY TWT(1) UA(P) DOLLARS and CENTS	EA	5.000	95

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	644	2049		INS SM RD SN SUP&AM TY TWT(1) UA(T) DOLLARS and CENTS	EA	4.000	96
	644	2060		REMOVE SM RD SN SUP & AM DOLLARS and CENTS	EA	19.000	97
	644	2065		RELOCATE SM RD SN SUP & AM TY TEMP DOLLARS and CENTS	EA	15.000	98
	658	2249		INSTL DEL ASSM (D-SW)SZ 1(RCR)GF2 DOLLARS and CENTS	EA	6.000	99
	658	2258		INSTL DEL ASSM (D-SW)SZ (TYC)CTB DOLLARS and CENTS	EA	8.000	100
	658	2278		INSTL DEL ASSM (D-SY)SZ (TYC)CTB(BI) DOLLARS and CENTS	EA	7.000	101
	658	2334		INSTL OM ASSM (OM-2Z)(RCR)GND DOLLARS and CENTS	EA	2.000	102
	662	2001		WK ZN PAV MRK NON-REMOV (W) 4" (BRK) DOLLARS and CENTS	LF	160.000	103
	662	2004		WK ZN PAV MRK NON-REMOV (W) 4" (SLD) DOLLARS and CENTS	LF	19,109.000	104
	662	2032		WK ZN PAV MRK NON-REMOV (Y) 4" (SLD) DOLLARS and CENTS	LF	28,339.000	105
	662	2075		WK ZN PAV MRK REMOV (W) 8" (SLD) DOLLARS and CENTS	LF	720.000	106

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	662	2079		WK ZN PAV MRK REMOV (W) 24" (SLD) DOLLARS and CENTS	LF	198.000	107
	662	2113		WK ZN PAV MRK SHT TERM (TAB) TY W DOLLARS and CENTS	EA	72.000	108
	662	2115		WK ZN PAV MRK SHT TERM (TAB) TY Y-2 DOLLARS and CENTS	EA	208.000	109
	666	2036		REFL PAV MRK TY I (W) 8" (SLD)(100MIL) DOLLARS and CENTS	LF	221.000	110
	666	2048		REFL PAV MRK TY I (W) 24"(SLD)(100MIL) DOLLARS and CENTS	LF	95.000	111
	666	2132		REFL PAV MRK TY I (Y) 24"(SLD)(100MIL) DOLLARS and CENTS	LF	1,296.000	112
	668	2106		PREFAB PAV MRK TY C (W) (ARROW) DOLLARS and CENTS	EA	6.000	113
	672	2012	034	REFL PAV MRKR TY I-C DOLLARS and CENTS	EA	82.000	114
	672	2015	034	REFL PAV MRKR TY II-A-A DOLLARS and CENTS	EA	412.000	115
	677	2001		ELIM EXT PAV MRK & MRKS (4") DOLLARS and CENTS	LF	8,574.000	116
1	678	2001		PAV SURF PREP FOR MRK (4") DOLLARS and CENTS	LF	1,841.000	117

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	730	2113		FULL-WIDTH MOWING DOLLARS and CENTS	CYC	8.000	118
	734	2002		LITTER REMOVAL DOLLARS and CENTS	CYC	48.000	119
	738	2224		CLEANING/SWEEPING (STREET) DOLLARS and CENTS	CYC	48.000	120
	740	2005	001	ANTI-GRAFFITI COATING (PERMANENT) DOLLARS and CENTS	SF	49,176.000	121
	8251	2003	005	RE PM W/RET REQ TY I(W)4"(BRK)(100MIL) DOLLARS and CENTS	LF	1,470.000	122
	8251	2006	005	RE PM W/RET REQ TY I(W)4"(SLD)(100MIL) DOLLARS and CENTS	LF	13,727.000	123
	8251	2015	005	RE PM W/RET REQ TY I(Y)4"(BRK)(100MIL) DOLLARS and CENTS	LF	340.000	124
	8251	2018	005	RE PM W/RET REQ TY I(Y)4"(SLD)(100MIL) DOLLARS and CENTS	LF	18,028.000	125
				ALTERNATE NO. 1A DOLLARS and CENTS			
	275	2001	002	CEMENT DOLLARS and CENTS	TON	738.000	126
	276	2274		CEM TRT (PLNT MX)(CL M)(TY A)(GR 4)(7") DOLLARS and CENTS	SY	22,989.000	127

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	276	2277		CMT TRT(PLNT MX)(CL M)(TY A)(GR 4) 10" DOLLARS and CENTS	SY	23,650.000	128
	316	2363	016	AGGR (TY-PD GR-4 OR TY-PL GR-4)(SAC-B) DOLLARS and CENTS	CY	189.200	129
	316	2701	016	ASPH(AC-15P,AC-20XP,AC10-2TR,AC15-5TR) DOLLARS and CENTS	GAL	8,514.000	130
	341	2011	024	D-GR HMA(QCQA) TY-B PG64-22 DOLLARS and CENTS	TON	6,503.800	131
	341	2050	024	D-GR HMA(QCQA) TY-C PG70-22 DOLLARS and CENTS	TON	3,902.300	132
	341	2106	024	D-GR HMA(QCQA) TY-D PG64-22 DOLLARS and CENTS	TON	1,208.300	133
	346	2014		STONE-MTRX-ASPH SMA-D SAC-A PG76-22 DOLLARS and CENTS	TON	2,552.300	134
	360	2005	003	CONC PVMT (CONT REINF-CRCP)(12") DOLLARS and CENTS	SY	21,969.000	135
	368	2001		WIDE FLANGE PAVEMENT TERMINALS DOLLARS and CENTS	LF	255.000	136
	678	2001		PAV SURF PREP FOR MRK (4") DOLLARS and CENTS	LF	26,359.000	137
	678	2006		PAV SURF PREP FOR MRK (24") DOLLARS and CENTS	LF	1,147.000	138

GENERAL NOTES AND SPECIFICATION DATA

SPECIFICATION DATA
(PERCENT RETAINED-SIEVE)

DESCRIPTION	2 1/2″	1 3/4″	#4	#40	PI MAX	PI MIN
FLEXIBLE BASE (TYPE A, GRADE 4)	0	0-5	45-75	70-85	12	4

1. This material shall be produced from a source which when tested in accordance with Test Method Tex-117-E, Part 1, shall meet the requirements of Class 2.3 material.
2. This material shall be produced from a source which when tested in accordance with Test Method Tex-116-E, the maximum Wet Ball Mill Value shall not exceed 45 and the maximum increase of material passing the No. 40 sieve shall not exceed 20 percent.
3. Job control samples for gradation and P.I. testing will be taken from the windrow after blade mixing.

BASIS OF ESTIMATE

ITEM	DESCRIPTION	RATE	BASIS	QUANTITIES
*166	FERTILIZER (20-10-10)			
	TEMPORARY SEEDING	300.00 LB/AC	18 AC	2.7 TON
	PERMANENT SEEDING	300.00 LB/AC	18 AC	2.7 TON
168	VEGETATIVE WATERING	13,100 GAL/AC/APP	87,865 SY	713 MG
276	CEMENT TREATMENT (PLNT MX)(CL M)(TY A)(GR 4)		45,619 SY	45,619 SY
316	SURFACE TREATMENTS			
	AGGREGATE (TY PD OR TY PL)(GR 4)	1/125 CY/SY	45,619 SY	365 CY
	ASPHALT (AC-15P, AC-20XP, AC10-2TR, AC15-5TR)	0.36 GAL/SY	45,619 SY	16,424 GAL
341	DENSE-GRADED HOT-MIX (QC/QA)			
	TY B PG 64-22	440 LB/SY	4,480 SY	985.5 TON
	TY B PG 64-22	550 LB/SY	40,692 SY	11,190.3 TON
	TY C PG 70-22	330 LB/SY	40,692 SY	6,714.2 TON
346	STONE MATRIX ASPHALT			
	SMA-D SAC-A PG 76-22	220 LB/SY	45,172 SY	4,969 TON
730	ROADSIDE MOWING	4 CYCLE/YR	2 YR	8 CYC
734	LITTER REMOVAL	2 CYC/MONTH	24 MONTH	48 CYC

ITEM	DESCRIPTION	RATE	BASIS	QUANTITIES
738	CLEANING AND SWEEPING			
	HIGHWAYS	2 CYC/MONTH	24 MONTH	48 CYC

***** FOR CONTRACTOR'S INFORMATION, ONLY

GENERAL NOTES

Protection of Fiber Optic Cable Systems
The State and/or its Contractor shall, five working days before any work is performed, call the railroad's communications network control center at 1-800-533-2891 (a 24-hour number) to assist in determining if fiber optic communications, control systems, or other type of cable systems are buried in the general locations where work is to be performed. In the event such cable is present, the State and/or its Contractor shall then call the owner of the cable line to determine its exact location. The Contractor shall indemnify and hold harmless the railroad against any cost or claims arising out of damage to any fiber optic communications, control systems or other types of cable systems, but only to the extent such damage is caused by negligence of the Contractor.

LIST OF MODIFIED STANDARDS

MC-10 (MOD), IL-H-G (MOD), MH-M (MOD)

ITEM 4: SCOPE OF WORK

All new and existing concrete adjacent to the roadway must be free of stains, dirt, tire marks, etc., at the time of final acceptance. These items include but are not limited to bridge rails curb and gutter, inlets, and riprap. Blast cleaning of these items will be required to achieve acceptance of the project and will be considered subsidiary to the applicable bid items.

Prior to final acceptance, all new structures and/or structures that have been extended shall be cleaned out by the Contractor. This work will not be paid directly, but will be considered subsidiary to the various bid items.

During final clean-up the Contractor will be required to remove any foreign material that has accumulated at all bridge abutments and bent caps. The removal of foreign material shall be performed in a manner approved by the Engineer. All work and equipment involved in the removal of this material will be subsidiary to the various bid items of the Contract.

ITEM 5: CONTROL OF THE WORK

All elevations are based on USC & GS datum.

All elevations are based on an assumed benchmark elevation. Benchmark locations and elevations are shown on the Horizontal Control Data sheets.

Prior to beginning work in the area of existing utilities, the Contractor shall consult with the utility companies for exact locations to prevent any damage or interference with present facilities. This action shall in no way be interpreted as relieving the Contractor of his responsibilities, under the terms of the Contract and as set out in the plans and specifications. The Contractor shall repair any damage caused by his operations, at his own expense and shall restore facilities to service in a timely manner.

Prior to any excavation, Contractor shall contact Waco District Signal Shop crew to locate any loop detectors or other buried traffic facilities. The Contractor shall coordinate with the Signal Shop any required relocations or adjustments.

ITEM 6: CONTROL OF MATERIALS

Mixing of materials, storing of materials, storing of equipment, or repairing of equipment on top of concrete pavement or bridge decks will not be permitted, unless specifically authorized by the Engineer. Permission will be granted to store materials on surfaces if, in the opinion of the Engineer, no damage or discoloration will result.

References to manufacturer's trade name or catalog numbers are for the purpose of identification, only, and the Contractor will be permitted to furnish like materials of other manufacturers provided they are of equal quality, comply with specifications for this project, and are approved by the Engineer.

Submit all fabrication and shop drawings to the Area Engineer for review and approval, unless otherwise directed.

ITEM 7: LEGAL RELATIONS AND RESPONSIBILITIES

If utilizing private property for waste disposal sites, field office sites, equipment storage site, or for any other purpose involved with this project, provide to the Engineer written proof of the property owner's approval for the use of this property. This proof may be in the form of a letter or agreement signed by the property owner or other documents acceptable to the Engineer.

Follow all local ordinances when burning cleared trees or brush.

Where existing pavement adjoins new pavement, saw the existing pavement to a neat transverse and/or longitudinal line to permit adequate joining. This will not be paid directly, but will be considered subsidiary to the various bid items.

Protect all adjoining pavement sections during all phases of construction. Any damages incurred due to Contractor's operation shall be repaired and/or replaced at the Contractor's expense.

All materials, labor and incidentals required for the Contractor to provide for traffic across the highway and for all weather ingress and egress to public and private property in accordance with Article 7.7 of the Standard Specifications shall be considered as incidental to the various bid

items. When construction is complete, the access roadways will be restored to their original condition, as approved by the Engineer.

Personal vehicles of the Contractor's employees shall not be parked within the right-of-way at anytime including any section closed to public traffic, unless the vehicle is being utilized for construction procedures; however, the Contractor's employees may park on the right-of-way at the sites where the Contractor has his office, equipment, and materials storage yard.

Work in this Contract is required to be done on railroad property. Cooperate with the railroad and comply with all of their requirements including obtaining any training they require before performing work on railroad property.

The Contractor shall not initiate activities in a project specific location (PSL) associated with a U.S. Army Corps of Engineers (USACE) Permit Area that has not been previously evaluated by the USACE as part of the permit review of this project. Such activities include, but are not limited to, haul roads, equipment staging areas, borrow, and disposal sites. *Associated*, defined here, means materials are delivered to or from the PSL. The permit area includes all Waters of the U.S. or associated wetlands affected by activities associated with this project. Special restrictions may be required for such work. The Contractor shall be responsible for any and all consultations with the USACE regarding activities, including project specific locations (PSLs), which have not been previously evaluated by the USACE. The Contractor shall provide the Department with a copy of all consultation(s) or approval(s) from the USACE prior to initiating activities.

The Contractor may proceed with activities in PSLs that do not affect a USACE permit Area if a self determination has been made that the PSL is non-jurisdictional or proper USACE clearances have been obtained in jurisdictional areas or have been previously evaluated by the USACE as part of the permit review of this project. The Contractor is solely responsible for documenting any determination(s) that their activities do not affect a USACE Permit Area. The Contractor shall maintain copies of their determination(s) for review by the Department or any regulatory agency.

The Contractor must document and coordinate with the USACE, if required, prior to any excavation hauled from or embankment hauled into a USACE Permit Area by either (1) or (2) below.

(1) Restricted Use of Materials for the Previously Evaluated Permit Areas. The Contractor will document both the project specific location (PSL) and their authorization. The Contractor will maintain copies for review by the Department or any regulatory agency. When an area within the project limits has been evaluated by the USACE as part of the permit process for this project:

a. Suitable excavation of required material in the areas shown on the plans and cross sections as specified in Item 110 is used for permanent or temporary fill (Item 132, Embankment) within a USACE permit area;

b. Suitable embankment (Item 132) from within the USACE permit area is used as fill within a USACE evaluated area; and,

c. Unsuitable excavation or excess excavation ["Waste"] (Item 110) that is disposed of at a location approved by the Engineer within a USACE evaluated area.

(2) Contractor Materials from Areas Other than Previously Evaluated Areas. The Contractor will provide the Department with a copy of all USACE coordination or approval(s) prior to initiating any activities for an area within the project limits that has not been evaluated by the USACE or for any off right of way locations used for the following, but not limited to, haul roads, equipment staging areas, borrow, and disposal sites:

a. Item 132, Embankment, used for temporary or permanent fill within a USACE permit area; and,

b. Unsuitable excavation or excess excavation ["Waste"] (Item 110, Excavation) that is disposed of outside a USACE evaluated area.

The total area disturbed for this project is 28.0 acres. The disturbed area in this project, all project locations in the Contract, and the Contractor project specific locations (PSLs), within 1 mile of the project limits, for the Contract, will further establish the authorization requirements for stormwater discharges. The Department will obtain an authorization to discharge stormwater from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. The Contractor is to obtain required authorization from the TCEQ for Contractor PSLs for construction support activities on or off the ROW. When the total area disturbed in the Contract and PSLs within 1 mile of the project limits exceeds 5 acres, provide a copy of the Contractor NOI to the Engineer and to the local government that operates a separate storm sewer system.

Throughout the course of the project, when in the opinion of the Engineer, tall grass and weeds affect the safety of the public by restricting visibility, interfere with normal traffic flow or appear unsightly, the Contractor shall be required to mow same. Final cleanup will include mowing of grass and weeds. This work will not be paid directly, but will be considered as subsidiary to the various bid items.

Remove all vegetation from pavement edges, intersections and driveways prior to planing, seal coat or ACP operations. This work will not be paid directly, but will be subsidiary to the various bid items.

The Contractor is alerted to the possible presence of swallows under the existing bridges or culverts. Because the Migratory Bird Treaty Act prohibits harm to swallows, their eggs or their nestlings, the Contractor shall not begin potentially disturbing activities on or near the bridge until the birds have abandoned any occupied nests (approximately September 1). Active nests may not be removed regardless of the date.

Prior to the swallows returning to the nests (approximately March 1), abandoned nests shall be removed from the bridge. The Contractor shall prevent the establishment of new nests on any portion of the structure. Methods for preventing the establishment of new nests must be approved by the Project Engineer. Examples of acceptable nest prevention methods are bird-deterrent netting and bird-repelling sprays and/or gels to be applied to the structure. This work will not be paid directly, but will be subsidiary to the various bid items.

General Notes for Work in Waters of the US

1. TxDOT will establish "limits of Waters of the United States" to designate stream banks (Ordinary High Water Marks) and wetland boundaries for the project with wood lathing and flagging. These areas have specific Corps of Engineer Section 404 permit requirements as stated in the following notes.

2. For *bridges*, the Contractor shall provide and maintain orange plastic security fencing (called orange fencing) slightly above the Ordinary High Water Marks, on each side of the stream and from ROW line to ROW line. For *culverts*, the Contractor shall provide and maintain orange fencing slightly above the Ordinary High Water Marks, on each side of the stream on the upstream and downstream culvert ends outside the limits of permanent facilities to the ROW lines. No construction activities or access below the orange fencing shall be allowed, unless approved by TxDOT. The boundaries for wetland areas shall also be established with orange fencing and timber mats must be used to support heavy equipment.

3. The Contractor shall submit detailed site specific plans for work in each "Water of the United States" designated on the EPIC sheet. These plans must be approved by the TxDOT Engineer prior to starting any work in these areas. The plans must also describe facilities and work activities adjacent the Ordinary High Water Marks. The plan must show actual dimensions and materials for:

- proposed construction roads and work areas leading to or in close proximity the Ordinary High Water Marks
- temporary material or equipment storage areas in close proximity to the Ordinary High Water Marks
- locations of proposed sediment and erosion control devices
- identification of construction equipment and construction techniques to accomplish the work

Once this drawing and supporting information is reviewed and approved by TxDOT, all construction workers should be made aware of the limits designated on the drawings by the Contractor's supervision. Work in all Waters of the US will be limited to the minimum necessary required to construct the bridge, culvert, or roadway fills. Work shall also include all activities needed for bridge and culvert demolitions. Working or disturbing soil in the stream channel outside the limits of the work plan will not be allowed. Orange fencing shall be provided and maintained to establish the TxDOT approved boundaries in which work may be conducted between the Ordinary High Water Marks.

4. Stormwater from disturbed soil areas draining towards wetlands shall either be re-routed or adequate sediment control devices installed to protect the wetland.

5. The Contractor shall select concrete bridge demolition methods that will meet all Section 404 requirements. Bridge demolition between Ordinary High Water Marks may typically include bridge slabs, girders, columns, and foundations. The use of jackhammers or crushing techniques shall be conducted over timber mats wide enough for the downed bridge and for access and use of construction equipment to fully remove the wrecked structure. Concrete structures requiring demolition shall not be fully processed into small pieces between the Ordinary High Water Marks. Large sections of the wrecked concrete structure should be lifted or moved to an upland area for further processing with the processing area using appropriate sediment control devices. Demolitions should be avoided during high stream levels. Efforts shall be made to minimize bridge rubble, including fine concrete materials produced through the demolition process, water from saw cutting activities or soils moved during demolition activities from entering the stream.

6. The construction or demolition of culverts should take place in a manner that does not block the flow in a Section 404 stream. Removal or demolition of bridge class culverts should be accomplished similar to bridge demolitions, but timber mats are not required. Efforts shall be made to minimize culvert rubble, including fine concrete materials produced through the demolition process, concrete saw cutting water or soils moved during demolition activities from entering the stream. Minimal stream channel disturbance should occur both upstream and downstream of culverts between the Ordinary High Water Marks.

7. No excavated material, including spoils from drill shafts, shall be deposited within the Ordinary High Water Marks at any time. Excavated material shall be immediately hauled to an approved temporary upland material storage area on TxDOT ROW. Excess material shall be hauled from the project site or spread above the stream bank limits as directed by the TxDOT Engineer. Adequate stabilization and sediment control devices shall be provided for soil materials spread and graded above the stream bank limits on TxDOT ROW.

8. No equipment or chemicals shall be stored overnight within waters of the US (between the Ordinary High Water Marks). Special care shall be taken to contain all sanitary waste, petroleum products, or chemicals from leaking or entering the stream. The Contractor shall make provisions to collect all construction related trash and debris each work day and to provide adequate containers for storage and removal.

9. Upon completion of work, all excess construction materials, construction debris, timber mats, shall be carefully removed from between the Ordinary High Water Marks of the stream while minimizing additional earth disturbance, protecting existing aquatic vegetation and limiting stream turbidity. Timber mats, located below the Ordinary High Water Marks shall be carefully removed by construction equipment located above the Ordinary High Water Marks. Stream shaping below the Ordinary High Water Marks, after removal of timber mats or other construction activities shall only be conducted when directed by TxDOT.

10. Adequate sediment and erosion control devices shall be installed to preclude sediment from entering the stream and to the requirements of the storm water permit. Continuous silt fences

with angled end sections and/or rock filter dams shall be installed along the entire length of disturbed soils, slightly above and parallel the High Water Marks of the stream and upslope of orange fencing specified in Item 2. No rock filter dams or other controls shall be installed across Section 404 streams below the Ordinary High Water Marks for either bridge or culvert installations. Large diameter compost logs shall typically be used on the boundaries of timber mats located between the Ordinary High Water Marks. Vegetation shall be established as soon as possible, beginning immediately when areas are brought to the proper lines and grades. Soil retention blankets and channel liners are encouraged to minimize erosion and promote vegetation development.

11. During any construction or demolition operations, soil shall never be pushed from the high bank into the stream channel below the Ordinary High Water Marks. Soil may be removed and shaped as necessary along the stream bank slopes above the Ordinary High Water Marks to facilitate construction with excess material being moved to high ground.

12. Trees removed between the Ordinary High Water Marks shall be sawcut. No mobile construction equipment shall be used to remove vegetation between the Ordinary High Water Marks. Trees will be cut flush with the ground level and pulled above the Ordinary High Water Marks for further processing. Only trees designated by the TxDOT Engineer shall be removed. No chemicals or stump grinding shall be used between the Ordinary High Water Marks. Follow all local ordinances when burning cleared trees or brush.

13. No water shall be pumped from any Water of the US without a permit from the appropriate River Authority or the Texas Commission on Environmental Quality. Upland stock tanks are exempt from this requirement.

14. Temporary construction roads or ramps, if approved by the Engineer, shall be constructed of material that will not erode and transport fine grain sediment downstream under high flows. Acceptable earthwork materials shall be rock material of 4-inch to 6-inch diameter. The use of rock and inert materials such as structural steel sections, wood mats, concrete mats, filter fabrics, and concrete barriers shall be acceptable to build roads and ramps. Fills consisting of clay, sands, or other fine grain materials shall not be used between the Ordinary High Water Marks. Loose earth materials generated by excavation between the Ordinary High Water Marks shall be re-compacted or moved to a high bank area before the end of each day. Temporary construction roads and ramps shall be removed as soon as possible and the stream channel returned to a near original condition. Earth materials (clays and sand) that fall from construction equipment onto roads or ramps, between the Ordinary High Water Marks, shall be cleaned and removed daily.

15. To facilitate culvert or bridge construction work, low stream flows may be temporarily pumped or routed around construction activities. Stream flow should not be stopped. To facilitate pumping or routing of low flows, whatever sumps or obstructions used to control the stream flow shall not be constructed of fine grained clays or sands.

ITEM 8: PROSECUTIONS AND PROGRESS

For this project, Five-Day Workweek Charges will be charged in accordance with Section 8.3.A.1. "Five-Day Workweek."

Prior to Contract letting, the conceptual construction schedule as developed for the Contract time determination will be made available by the Department at the Area Engineer's office for prospective bidders review. The schedule will be in hard copy form and made available for copying by the Contractor. This supplied schedule is for informational purposes, only. It is the responsibility of the prospective bidder to determine a construction schedule for the work in this Contract.

In the event utility lines needing unforeseen adjustments are encountered during construction operations, alter operations and continue to prosecute the Contract in such a manner that will allow utility adjustments to be made by others.

For all subcontracts, physically attach all provisions listed in the "Contractor's Assurance" to the subcontract agreement. Provide a copy of subcontracts, with attachments, for all DBE Subcontractors. Submit the subcontracts to the Engineer when submitting the subcontract approval request.

Construction schedules provided by the Contractor shall include line items required to maintain compliance with the stormwater permit. Those line items shall include, but not be limited to installing/removing stormwater sediment controls, installing soil retention blankets/channel liners, topsoil/compost placement, seeding (temporary and permanent), and placement of permanent erosion controls, earthwork, and grading.

ITEM 100: PREPARING RIGHT OF WAY

Preserve trees within temporary construction easements in accordance with Item 100, Article 100.2., unless otherwise directed by the Engineer. Prune trees designated for preservation as directed by the Engineer. All work required in preserving and pruning trees shall be included in the price bid for Item 100.

The removal of trees and vegetation shall be subsidiary to Item 100. Preserve all trees designated by the Engineer.

The removal of any existing fence will not be paid directly, but shall be considered subsidiary to the bid item 100, "Preparing Right of Way."

All trees and brush removed each day shall be disposed within the same day of removal, unless otherwise approved by the Engineer. If removed vegetation is burned, ashes from burned vegetation shall not be placed or allowed to be transported by stormwater into any stream. Burn locations, if approved, shall be no closer than 300 feet from a stream. Earth berms shall be used around burn areas to keep ash in place.

The Contractor is prohibited from removing grass vegetation throughout the entire project limits and then ceasing construction for long periods, typically over three weeks. The Contractor schedule shall be developed to include staged vegetation removal, limiting disturbed soil, and revegetation. Should the Contractor not adequately be able to control sediment and erosion for areas disturbed, TxDOT shall reduce the size of areas that the Contractor may disturb soil.

ITEM 110: EXCAVATION

In a cut section, when soils to be lime-treated are encountered at subgrade depths that have a soluble sulfate level greater than 3000 parts per million (ppm), as determined by Test Method Tex-145-E or unstable for reason other than excess moisture, undercut this material for a minimum depth of 1.0 foot below the lime-treated layer and maximum depth as determined by the Engineer and replace with a material having a plasticity index less than 25, a liquid limit of less than 50 and a soluble sulfate content of less than 3000 ppm. This required undercutting will be paid at the price bid for Item 110, "Excavation." Replacement of more suitable material will be paid at the price bid for Item 132, "Embankment."

Proof roll the completed subgrade to locate unstable areas. Proof rolling shall be in accordance with Item 216 "Proof Rolling."

ITEM 132: EMBANKMENT

All embankment material (Type A, Type B, and Type C) will be checked for the presence of soluble sulfates. Type C embankment shall consist of suitable earth material such as rock, loam, clay, or other materials as approved by the Engineer that will form a stable embankment. In addition to the below requirements, the top 2 feet of embankment, including material used to complete front slopes after final surfacing, shall have a plasticity index less than 25, a liquid limit less than 50, and a soluble sulfate content of 3000 parts per million or less, as determined by Test Method Tex-145-E. Test Method Tex-146-E may be used to check for soluble salts in these materials. If results of this testing indicate a salt level in excess of 200 microsiemens, Test Method Tex-145-E must be performed on the material to determine if the salt present are sulfates and the concentration. Under no circumstance, will materials possessing a soluble sulfate concentration greater than 7000 parts per million (ppm) be allowed in a layer within 1 foot of a lime-treated layer or material possessing a soluble sulfate concentration greater than 3000 ppm be allowed in a lime-treated layer.

Offsite Borrow Sources: Test offsite borrow sources for sulfate content, plasticity index, and liquid limit. Test soils for soluble sulfates in accordance with Test Method Tex-145-E and Tex-146-E. Provide the Engineer test reports for the tests listed above for each borrow source. Tests should be performed on all types, colors, and/or textures of soil in the borrow source. The Engineer will perform additional testing for sulfates of this material upon delivery to the project.

Only material that is placed within one-foot vertically or laterally of treated subgrades will require testing for sulfates.

Proof roll the completed subgrade to locate unstable areas. Proof rolling shall be in accordance with Item 216 "Proof Rolling."

ITEM 110: EXCAVATION
ITEM 132: EMBANKMENT

Subgrade soils to be lime treated will be evaluated for the presence of soluble sulfates as determined by Test Method(s) Tex-145-E and/or Tex-146-E, as determined by the Engineer.

In those cases where fixed features require, the governing slopes indicated on the cross sections may be varied between the limits and to the extent determined by the Engineer.

Prior to Contract letting, one copy of the earthwork cross sections will be made available by the Department at the Area Engineer's office for prospective bidders review. Earthwork construction cross-section data is also available to the Contractor on a Department-furnished compact disc at the Area Engineer's office. This supplied cross-section plot or computer data is for non-construction purposes, only, and is the responsibility of the prospective bidder to validate the supplied plot or data with the accompanying plans, specifications, and estimates for this Contract.

Design cross-sections and cross-section data will be provided to the Contractor by TxDOT post letting and shall be used to stake the lines and grades for the project, as directed by the Engineer.

When excavation is required to adjust stream flowlines at culvert ends, flatten the side slopes of channels and the back slopes of parallel ditches to the maximum extent possible within the existing right of way and channel easements.

Stormwater containing suspended sediment and turbidity needing to be removed from excavations or low areas shall be pumped or gravity drained through vegetated buffer strips (50 foot minimum) or placed in ditches with temporary sediment controls, prior to the water being discharged into a stream.

ITEM 160: TOPSOIL

The Contractor may salvage the existing topsoil from the cut/fill areas. Stockpile the salvaged topsoil material at locations as approved by the Engineer. Topsoil shall not be used for general fill, unless there is an excess quantity of topsoil and use is approved by TxDOT. Topsoil stockpiles or topsoil placed along the ROW lines in windrows shall be temporarily seeded to meet stormwater permit requirements. Additional offsite topsoil may be required to complete work for this Item.

If additional topsoil is needed for this Item, it shall come from approved sources outside of the ROW. Topsoil must come from a location within 6-inches of the natural ground surface to ensure it contains nutrients and is not sterile soil.

ITEM 164: SEEDING FOR EROSION CONTROL

Final grading and stabilization (seeding) shall be achieved as soon as possible and not scheduled only for the end of the project. Final grading and stabilization should be initiated as the overall work progresses and should be scheduled in sequence with completion of base course installation along the length of the road project.

Multiple mobilizations of the seeding crews will be expected to comply with the Construction General Permit of the Texas Pollution Elimination Discharge System requirements for re-vegetating disturbed soils.

ITEM 276: CEMENT TREATMENT (PLANT-MIXED)

Wet the construction joints between new base and base previously placed and coat with dry cement prior to the addition of new base.

Cure the cement-treated material with an application of MS-2 or an emulsion approved by the Engineer at a rate of 0.2 gal/sy. The application of this material will not be paid directly, but will be considered subsidiary to Item 276.

ITEM 302: AGGREGATES FOR SURFACE TREATMENTS

The precoated aggregate target value for residual bitumen shall be determined by the Engineer. This value shall be in the range of 0.5 to 1.5%, by weight, of residual bitumen from a precoating material.

ITEMS 305: SALVAGING, HAULING, AND STOCKPILING RECLAIMABLE ASPHALTIC PAVEMENT

The existing asphalt pavement is suitable and available for re-use in the hot-mix.

Stockpile RAP not used in this project at:

LP 363 at FM 438 in Bell County
FM 436 near FM 3219 in Bell County

Neatly shape the stockpile using a frontend loader or other similar equipment as directed by the Engineer.

ITEM 316: SURFACE TREATMENTS

The Engineer will select the asphalt for surface treatments from the types and grades shown on the plans.

AC-15P, AC 20-XP, and AC10-2TR are recommended for warm season use and are not to be placed between October 1 and May 1. AC 12-5TR is recommended for cool season use and can be placed between October 1 and May 1 in accordance with the suppliers' recommendations.

All trucks hauling materials to be paid by truck measurement shall be "struck off" prior to delivery to the project.

Protect all existing bridges, curbs, and other exposed concrete surfaces within the limits of these projects as much as practicable from asphalt materials by any method that is acceptable to the Engineer. Remove any excessive asphalt materials deposited on these surfaces in a manner approved by the Engineer at the Contractor's expense.

If existing conditions warrant during application of the surface treatment, the lane widths, transitions, and intersection areas may be varied as directed by the Engineer.

Use a medium pneumatic roller meeting the requirements of Item 210 as directed by the Engineer. This work will be subsidiary to the various bid items.

Remove dirt and debris that has accumulated in the curb and gutter sections prior to beginning paving. Likewise, remove all vegetation from pavement edges prior to seal coat operations. This work will be subsidiary to other items.

ITEM 341: DENSE-GRADED HOT-MIX ASPHALT (QC/QA)
ITEM 346: STONE-MATRIX ASPHALT

The Contractor shall provide a ticket writer during hot-mix operations.

RAP will be allowed in all types of Item 341 hot-mix under this Item. The locations and availability of the RAP at various Department-owned stockpiles can be obtained from the Engineer at the time of letting.

RAP from Contractor-owned sources may be used if the RAP is fractionated. The coarse fraction of Contractor-owned RAP will not be allowed, if it consists primarily of siliceous aggregates.

Hydrated lime shall be added to the hot-mix asphalt as an additive to improve quality of the mixture. The lime shall be added at a rate of 1.0%, by weight, of the total aggregate. The lime shall meet the requirements of Type A hydrated lime, or Type B commercial lime slurry, that meets the requirements of DMS-6350, "Lime and Lime Slurry." The lime shall be added to the fine aggregate, pugmill mixed, and stockpiled a minimum of 24 hours prior to introduction to mixing plant. Other methods of adding lime that produce comparable results and that are acceptable to the Engineer may be considered. Lime shall not be paid directly, but will be considered as subsidiary to various bid items.

Evaluate the mixture proposed for use for moisture susceptibility in the mixture design and production stages by Test Method Tex-530-C, unless otherwise directed by the Engineer. Maximum stripping of 0% is required. If more than 0% stripping occurs, additional anti-stripping agent may be required.

The placement pay factors for shoulders placed separately from the travel lanes shall be based on in-place air void determinations.

For this Contract, provide a continuous flow of material to the paver by means of a self-propelled material transfer vehicle (MTV). The (MTV) shall consist of a mobile hopper with a sufficient storage capacity and conveyor that will provide a non-stop placement of the hot-mix asphalt pavement for all courses on the traffic lanes and shoulders. The MTV shall have a system of augers or other approved systems to remix the mixture during the transfer process. The Engineer shall approve the MTV before use. This is required to minimize segregation and improve the ride quality.

Utilize a paver ski or mobile stringline at least 40 ft. long during placement of all hot-mix placed with an asphalt paver, unless otherwise approved by the Engineer.

Any truck bed releasing agent shall be approved by the Engineer.

ITEM 351: FLEXIBLE PAVEMENT STRUCTURE REPAIR

The Contractor shall replace the unstable pavement structure with 12 inches of asphaltic concrete pavement (Type C), unless otherwise directed by the Engineer. The Engineer shall determine the exact locations and limits of pavement repair in the field prior to beginning this work.

ITEM 341: DENSE-GRADED HOT-MIX ASPHALT (QC/QA)

Target laboratory-molded density shall be 97.0% if the Texas Gyratory Compactor is used for design and production control. If using the Superpave Gyratory Compactor, the laboratory density shall be 96.0%.

ITEM 360: CONCRETE PAVEMENT

Contractor personnel performing job-control testing on concrete must be ACI-Certified. Provide a copy of the certification paper to the Engineer upon arrival and before testing at jobsite. Furnish hard copies of calibration reports for testing equipment when non-TxDOT approved equipment is used to test concrete.

Maintain on the jobsite sufficient polyethylene fabric, as directed by the Engineer, to cover a minimum area of concrete pavement 600 feet long and 25 feet wide.

The coarse aggregates used in the concrete paving mixture shall produce concrete with a coefficient of thermal expansion (CoTE) not greater that 6.0×10^{-6} inch/inch/°F when tested in accordance with Test Method Tex-428-A. Specimens shall be made and cured in accordance with Test Method-Tex-447-A and be at least 7 days old before testing. The Construction Division will perform all testing for CoTE for aggregate acceptance; test results shall be final.

When conventional paving methods are used (forms), a longitudinal finishing machine will be required. The longitudinal finishing machine shall be provided with a longitudinal float not less than 10 feet in length, adjusted to a true plane. It shall be power-driven, mounted in a substantial

frame equipped to ride on forms, and shall be so designed and operated as to finish the required grade. In lieu of the longitudinal finishing machine, the Contractor may use a longitudinal trans-angular float, which is adjustable to crown and grade. This type of float is also known by various trade names such as V Finisher, Lewis Trans-angular Finisher, C.M.I. Tube float, etc. The operation of the longitudinal trans-angular float shall be as approved by the Engineer.

Place construction, sawed and construction joints in accordance with the Pavement Detail sheet and as directed. Joint locations, other than as shown on the plans, are subject to approval. Pavement leaveouts are required on this project as necessary to provide for traffic at driveways and side streets as shown in the plans or as directed. The cost of providing these leaveouts, including the construction of a suitable crossover connection at each site, is not paid directly, but is considered subsidiary to this Item.

Concrete curing compounds shall not be applied in a manner that the chemical will be spilled, dripped, or discharged into streams. Containers and rags used during application of curing compound shall be properly disposed off the project. Do not store curing compound containers and drums on TxDOT ROW.

ITEM 400: EXCAVATION AND BACKFILL FOR STRUCTURES

Aggregate for cement-stabilized backfill shall be Grade 3, 4, or 5 coarse aggregate shown in Item 421, "Hydraulic Cement Concrete."

Class B bedding is required, if rock is encountered.

ITEMS 416 AND 420: DRILLED SHAFT FOUNDATIONS, CONCRETE STRUCTURES

Column lengths shown on the plans shall be used to calculate the top of drilled shaft elevations for the determination of pay quantities. Pay quantity for bent concrete shall be plan quantity.

The Engineer will provide compressive strength testing equipment.

Soil from foundation drilling shall be removed immediately from the stream channel area to higher ground above the Ordinary High Water Marks. No earth drill spoil material shall be deposited into water of a stream. If used, drilling mud will not be allowed to enter into any stream.

ITEM 420: CONCRETE STRUCTURES

Reduce headwall heights, if necessary, to provide a maximum of 3 inches projection above the roadway slope. No increase or decrease will be made in plan quantities of concrete or reinforcing steel for this work.

Paint the Control-Section-Structure (CSS) number on the right side of each approach end of finished bridges or culverts, using black exterior paint and stencils that result in two inch high numbers. All numbers should be legible and free of smears or drips. Unless otherwise directed

by the Engineer, the nine-digit CSS number shall be placed within two feet of the end of each bridge type as follows: concrete or steel girder bridge on outside of girder; slab type bridge on outside of slab; bridge class culverts on outside of headwall. The painting of these numbers will not be paid directly, but will be considered subsidiary to the various bid items.

All construction products used to construct concrete structures and bridges including but not limited to plastics, Styrofoam, grease, glues, caulking, adhesives, solvents, paints, cleaning agents and rubber shall be handled in a manner that the construction products or empty containers/tubes shall not be allowed into any stream. Construction debris developed from the cutting, grinding, or sizing of solid construction products including plastics and Styrofoam shall not be allowed on the ground or to blow into a stream.

Concrete curing compounds shall not be applied in a manner that the chemical will be spilled, dripped, or discharged into streams. Containers and rags used during application of curing compound shall be properly disposed off the project. Do not store curing compound containers and drums on TxDOT ROW.

ITEM 421: HYDRAULIC CEMENT CONCRETE

Entrained air is required in all slip formed concrete (bridge rail, concrete traffic barrier, pavement, etc.), but is not required for other structural concrete. Adjust the dosage of air entraining agent for low air content as directed or allowed by the Engineer. If entrained air is provided, where not required, only the upper limits of the Special Provision will be enforced.

ITEM 427: SURFACE FINISHES FOR CONCRETE

No painting of structures shall be done between November 1 and April 1, unless otherwise authorized by the Engineer.

Provide bridge structures with a Surface Area II, Rub Finish, except that the vertical and the underside surfaces of bents shall also receive a "Rub Finish." Rub Finish shall be performed immediately following form removal as specified under Item 427.

Provide all culverts with a Surface Area II, Rub Finish.

ITEM 432: RIPRAP
ITEM 529: CONCRETE CURB, GUTTER, COMBINED CURB AND GUTTER

Blast clean all concrete curb, curb and gutter, and riprap in accordance with Item 427 as part of the final clean-up and acceptance process. Other methods may be approved to obtain a uniform clean appearance, free of marks, stains, etc., at the time of final acceptance.

ITEM 432: RIPRAP

Locations and quantities may be varied as directed by the Engineer to accommodate field conditions.

Weep holes and granular material, are required and locations shall be determined by the Engineer prior to placement of concrete riprap at bridge abutments.

ITEM 427: SURFACE FINISH FOR CONCRETE
ITEM 450: RAILING
ITEM 514: PERMANENT CONCRETE TRAFFIC BARRIERS

Blast clean all railing and barrier wall in accordance with Item 427 prior to final acceptance of the project. This work will be considered subsidiary to Item 450 and Item 514.

Insure slip formed barrier and cast-in-place barrier will be uniform in color and texture.

ITEM 462: CONCRETE BOX CULVERTS AND STORM DRAINS

Joints between precast concrete box culverts shall be preformed flexible joint sealants as described in Section 464.3.C. "Jointing."

Reshape embankment side slopes, provide embankment as required, and add topsoil to achieve a smooth uniform finish around the installation of the safety end treatments and culvert extensions as directed by the Engineer. Finishing and reshaping work will be subsidiary to Items 132, 162, and 467.

Any sediment controls removed by the Contractor at culverts or adjoining channels must be re-installed before the next rainfall event or by the end of day, as approved in advance by the Engineer.

ITEM 464: REINFORCED CONCRETE PIPE

Install all reinforced concrete pipe on this project using preformed flexible joint sealant.

ITEM 467 SAFETY END TREATMENT

Welds are not allowed to splice safety pipe runners. A safety pipe runner shall be one continuous pipe.

ITEM 496: REMOVING STRUCTURES

All pipe culverts removed under this Contract shall become the property of the Contractor to be disposed off the right of way, unless otherwise directed by Engineer.

ITEM 502: BARRICADES, SIGNS AND TRAFFIC HANDLING

A meeting between the Contractor and Engineer to discuss upcoming changes in construction phasing and traffic switches is required at least 14 days prior to the phase change. Items to be discussed at this meeting include temporary signing, traffic control, pavement markings, the processes necessary for the phase change, and subcontractor scheduling.

Adjust the location of the construction speed zone throughout the duration of the project as necessary and as approved by the Engineer.

All signs, delineators, object markers, and route markers shall be in place prior to opening each phase of construction to traffic.

When a culvert extension, inlet construction, safety end treatment, or open excavation, etc. is within 30 feet of a travel lane, then delineate these areas as shown on the BC Standard sheets. In addition, a 4-foot high plastic construction fence shall be required at or around any structure or obstruction that would be a hazard to pedestrians, unless otherwise approved by the Engineer. This fence shall be erected in a manner acceptable to the Engineer. Construction fencing will not be paid separately, but will be considered subsidiary to Item 502.

The Contractor's Responsible Person (CRP) shall inspect and insure any deficiencies are corrected each and every day throughout the duration of this Contract. Any misaligned or damaged traffic control devices shall be repaired as soon as practical after deficiency is discovered.

In addition to providing a Contractor's Responsible Person and a phone number for emergency contact, have an employee(s) available to respond on the project for emergencies and for taking corrective measures within 30 minutes.

Place advisory speed plates (CW13-1) in accordance with the TMUTCD and as directed by the Engineer. Signs (CW13-1) shall not be used with any signs other than a warning sign, nor shall it be used alone. Sign mounting height shall be seven (7) feet minimum to the bottom of the speed plate.

Cover work zone speed limit signs with a commercial grade sign cover or remove signs when work activities allow as directed by the Engineer. Turning signs from view, laying signs over or down will not be allowed. The Contractor will coordinate changes in speed limit signs with law enforcement.

The **shadow vehicle** with truck-mounted attenuator (TMA) will not be optional, but will be required as shown on the appropriate Traffic Control Plan sheets. Truck-mounted attenuators shall meet the requirements of the Compliant Work Zone Traffic Control Device List. The use of truck-mounted attenuators shall not be paid directly, but shall be considered subsidiary to Item 502.

Open the pavement to traffic each night. Remove all material stockpiles, equipment left overnight, or any obstruction within 30 feet of a travelway or clearly mark by warning lights and barricades, as approved by the Engineer.

Arrange construction operations to prevent the hauling of materials through the completed pavement sections, unless otherwise approved by the Engineer.

Unless otherwise shown on plans, where there is excavation adjacent to the pavement edge, provide adequate warning signs, vertical panels, drums and reflectors at the pavement edge, as

directed by the Engineer. Treat pavement drop-offs created by ACP operations in a similar manner and in accordance with the details shown in the plans.

When excavation is required next to a travel lane carrying traffic, widening is not completed by the end of the day's operation, and unless otherwise permitted in the plans, place sufficient backfill against the edge of the travel lane in order to provide a 3:1 slope. The backfill used shall be durable crushed stone type of flexible base or other materials approved by the Engineer. When work is resumed on this excavated area this backfill material shall be incorporated into the road work or disposed as approved by the Engineer. Materials and labor for this work will not be paid directly, but will be subsidiary to the various bid items.

Equip all construction equipment involved in roadway work with a permanently-mounted warning light with amber lens as approved by the Engineer.

For nighttime flagging operations, each flagger station shall be lighted with portable light plants. The flagger shall wear Class 3 reflective garments. Lights shall be positioned as to not blind motorists.

ITEM 504: FACILITIES FOR FIELD OFFICE AND LABORATORY

Provide a structure (beam house) for use as a curing location, tank room, and test area for concrete beams and cylinders made for this project. The Contractor must supply all of the curing tanks and adequate space for storage. The structure shall include a water faucet.

Furnish, for the Engineer's exclusive use, a laboratory meeting the specified Type D Structure. The building shall be located at the Contractor's hot-mix plant site and be separate from the Contractor's laboratory.

The use of space heaters for the purpose of heating the structure is unacceptable. The building must be structurally sound and pose no safety hazards. The laboratory must meet all the above requirements within two (2) weeks prior to beginning of work.

ITEM 506: TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS

No soil disturbing activities shall begin on any section of TxDOT ROW without adequate sedimentation controls first being installed and functioning at adjacent drainage outfalls. Begin and continuously prosecute the repairs, additions, and maintenance of erosion and sedimentation control devices within seven days after the Contractor receives each Form 2118, Field Inspection and Maintenance Report from the Engineer. Failure of the Contractor to fulfill either of the above requirements places TxDOT in potential non-compliance with permit requirements and may result in withholding estimates or stopping work or both until all environmental permit requirements are fulfilled.

Furnish one SW3P permit posting sign and sign support as detailed in the plans. Install this sign in a location selected by the Engineer. The sign and support shall be removed upon completion

of the project and is the property of the Contractor. The purchase of the sign and support, installation, relocation(s) if determined necessary by the Engineer and removal at project end shall be subsidiary to Item 506.

Prior to TxDOT allowing the Contractor to start construction, the Contractor shall provide the required stormwater and Section 404 Permit documentation and support activities including, but not limited to, the following:

- Provide a list of all chemicals, construction, and waste products that will be generated, stored, or brought upon TxDOT ROW. The list includes expected construction debris, sanitary wastes, construction chemicals, and petroleum products used or generated by the Contractor and subcontractors. Along with the list, the Contractor shall supply a Spill Prevention Plan and clean up procedures that will include each of these chemical products or generated waste.
- Provide in the construction schedule and necessary line items that will comply with the schedule and planning requirements of the stormwater permit.
- Post the TxDOT Stormwater Permit and any Contractor permits, per permit requirements.
- Provide copies of Stormwater Permits for Contractor PSL(s). As new PSL(s) may be obtained for the project, provide copies of new or amended permits to TxDOT. The Contractor shall not disturb soil without the proper permits.
- Provide scale drawings of off ROW PSLs within one mile of the project for field offices, borrow sources, plant sites, or other uses.
- Provide permit information on any Contractor batch plants or concrete crushing plants to be located at a Contractor PSL(s) within one mile of the project limits or boundaries. Copies of the air and water permits are to be provided to TxDOT before materials shall be used on the project. No asphalt, concrete batch plants, or concrete crushing plants shall be located on TxDOT ROW.
- Provide a letter indicating a Contractor Responsible Person for environmental compliance (CRPE) for the project, and maintain a CRPE throughout the project duration.

Place and maintain trashcans and portable sanitary facilities at locations where there is active construction. Worker-generated trash and construction debris shall be kept from being transported by stormwater, collected daily from the ground, and routinely hauled from the work area.

Contractor shall provide to TxDOT copies of all correspondence with MS4s, TCEQ, EPA, DSHS, and Corps of Engineers regarding activities on this project.

Contractor to conduct stormwater inspections and develop SWPPP documents to support Contractor permits obtained for the project including PSLs.

Contractor shall maintain written documentation of locations of all portable sanitary facilities. The Contractor is required to document the location and disposition of all spills and cleanups from portable sanitary facilities.

Contractor shall not store chemicals on TxDOT ROW, unless chemicals are stored following all environmental and safety regulations. Fuels for construction equipment shall not be stored on TxDOT ROW.

The Contractor shall store fuels and bulk chemicals on Contractor PSLs using a secondary containment method, such as double-lined tanks and/or freestanding containment reservoirs made of plastic or steel designed to hold bulk chemicals or drums.

The Contractor shall not remove sediment controls without the prior approval of TxDOT, except for a sediment control that may back up water and cause safety or traffic problems.

Vegetative buffer strips may be used in place of temporary sediment controls such as silt fences and rock filter dams. The amount of disturbed soil area shall be limited to 1/3 acre, or less, for a minimum 50-foot of grassed ditch and 2/3 acre of disturbed soil for a minimum 100-foot of grassed ditch.

Construction equipment found to be leaking oil, fuel, or coolant shall be immediately stopped, the leaking fluid collected, and the equipment fixed. Equipment continuing to leak shall be removed from the project at no cost to TxDOT. Leaking fluids from equipment shall be collected and removed from the project or PSL.

Earth berms or mounds shall be seeded immediately upon being constructed. Long-term use of earth berms or mounds shall not be continued without establishing grass on the control.

The Contractor shall inform TxDOT of new areas where soil will be disturbed to facilitate planning for new sediment controls. Areas of vegetated soil shall not be disturbed by the Contractor, unless adequate sediment controls can be installed before the next rainfall event. The Contractor shall assist TxDOT in keeping an accurate set of working SWPPP drawings that show the locations of all temporary sediment and erosion controls.

The Contractor shall maintain an adequate amount of temporary sediment controls on hand at the field office or project staging area for critical SWPPP maintenance, including silt fence and rock/fabric for rock filter dams.

Failure of a subcontractor to complete stormwater work on time shall require the Contractor to start stormwater sediment control work, immediately, complete the work with high priority, or be subject to stop-work on the entire project.

Earth materials on roads as a result of soil tracking shall not be allowed to be transported off ROW in stormwater. Soil or rock material found on roadways deposited from Contractor equipment shall be removed daily.

Unless approved by the Engineer, completed concrete curb inlets shall not be blocked by sediment controls. The Contractor shall frequently sweep the completed or partially completed roadway to keep sediment out of drainage pipes.

The Contractor shall be responsible for proper dust control and shall route construction traffic in a manner that minimizes dust generation.

Water for dust control shall contain no pollutants, but may be non-potable from upland stock ponds. No quantity of water to be used for construction purposes may be taken from a Section 404 stream, prior to the proper authorizations or permits being obtained by the Contractor.

ITEM 508: CONSTRUCTING DETOURS

Any widening that is not protected by a positive barrier and any drop-offs greater than 2 inches, must be sloped at no steeper than a 3:1 slope at the end of each work day.

ITEMS 512: PORTABLE CONCRETE TRAFFIC BARRIER

Delineate barriers by a minimum of 2 Class A reflectors per section. Reflectors mounted on the top and the traffic side of the barrier shall match the color of the nearest edgeline. These reflectors will not be paid directly, but will be considered subsidiary to the various bid items.

The portable concrete traffic barrier will be furnished by the Department. Upon completion of the project, these units will be delivered and stockpiled at the designated location or location of equal haul distance as directed by the Engineer. The Contractor will furnish equipment necessary to load and unload the units at the stockpile locations. Concrete barrier deemed no longer salvageable for reuse by the Engineer shall be disposed by the Contractor.

Provide the rebar cages for connecting the portable concrete traffic barrier.

All hardware shall become the property of the Department and shall be returned to the Texas Department of Transportation Maintenance yard at the designated location. Place hardware in approved wire basket-type containers.

Concrete traffic barrier no longer required on the project shall be stockpiled at the designated location.

The units shall be returned in the same condition as when received.

ITEM 529: CONCRETE CURB, GUTTER, AND COMBINED CURB AND GUTTER

Attach machine laid curb to pavement with a two compound epoxy adhesive. Epoxy shall be applied to that area of pavement under the machine laid curb and must be a minimum of 6 inches in width and 0.2 inches (20 mils) thick. The epoxy shall be applied uniformly by some method approved by the Engineer.

ITEM 540: METAL BEAM GUARD FENCE

In the event a guard post falls on top of an inlet, cut the post to the proper length and bolt it to the inlet top as shown on the plans.

The blockouts used on the metal beam guard fence will be made of a composite material from a source on the Department-approved list of suppliers. The use of wooden blockouts will not be allowed.

ITEM 542: REMOVING METAL BEAM GUARD FENCE

ITEM 544: GUARDRAIL END TREATMENTS

W-beam elements deemed salvageable by the Engineer will remain the property of the Department and shall be returned to the TxDOT Maintenance yard at the designated location. All other guard fence, and SGTs deemed non-salvageable will become the property of the Contractor.

ITEM 544: GUARDRAIL END TREATMENTS

The blockouts used on the single guardrail terminals will be made of a composite material from a source on the Department-approved list of suppliers. The use of wooden blockouts will not be allowed.

ITEM 545: CRASH CUSHION ATTENUATORS

The Reusable Energy Absorbing Crash Terminals (REACT 350) will be furnished by the Department. Upon completion of the project, these units will be delivered and stockpiled at the designated location as directed by the Engineer. The Contractor will furnish equipment necessary to load and unload the units at the stockpile location.

The Contractor shall furnish all anchoring hardware.

REACT 350 will become the property of the Department and stockpiled at the Texas Department of Transportation Maintenance yard at the designated location. Hardware will be placed in crates. Hardware for each REACT 350 will be crated separately.

REACTs will be removed in such a manner that they will not be damaged.

Object markers (OM-3L and OM-3R) as shown on the Standard "BC(7)-07" and "D&OM(VIA)-04" will be furnished by the Contractor and shall be subsidiary to this Item.

ITEM 585: RIDE QUALITY FOR PAVEMENT SURFACES

The ride quality for the pavement surface shall be Surface Test Type B along the finished riding surface of all travel lanes as defined below:

Schedule 1 will be used for all new LP 363 construction, using flexible/asphalt pavement.

Schedule 2 will be used for LP 363 new construction using concrete pavement.

All other roads shall be Surface Test Type A.

The Contractor shall take care to ensure satisfactory profile results in the intermediate paving layers (mixture) to eliminate corrective action for excessive deviations in the final surface layers.

Milling will not be allowed as a corrective action for excessive deviations in the surface layer of hot-mix.

ITEM 644: SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES

Measure all dimensions in the field at the actual locations.

Place signs in accordance with lateral and vertical clearances as shown on Sign Mounting Details for Small Roadside Signs and in the *Sign Crew Field Book*.

Sign placement heights are a minimum of seven (7) feet and a maximum of seven feet six inches (7ft.-6in.) to the bottom of the sign or plaque. Mounting heights are measured as follows:

1. When the base of the sign is below the edge of the travel lane, the sign height is measured from the edge of the travel lane to the bottom of the sign.
2. When the base of the sign is above the edge of the travel lane, the sign height is measured from natural ground to the bottom of the sign.
3. When a supplemental plaque or secondary sign is used, the sign height is measured to the bottom of the supplemental plaque or secondary sign.
4. When a sign has two or more posts, all posts must be a minimum height above natural ground to the bottom of the sign. The sign also must be a minimum height above the edge of the travel lane.

Leave the existing sign assemblies in place until the proposed foundation, post, and sign are in installed; then, remove the old sign assemblies.

Do not leave any sign foundation holes open overnight. Ensure all holes drilled are at least the minimum required depth with no loose material remaining in the hole.

Stake proposed sign locations and receive approval before installation of sign foundations. Determine each post length after the stub has been placed.

For sign assemblies using the "Texas Universal Triangular Slipbase System Mounts," furnish and install a No.4 rebar at least 7 inches long through the 3/4-inch diameter hole in the stub to prevent the stub from rotating in the foundation as detailed on the Sign Mounting Details for Small Roadside Signs.

Furnish and install a 5/16-inch x 1 1/2-inch double roll pin between the slip base casting and the sign support post to prevent the sign assembly from rotating on the stub as detailed on the Sign Mounting Details for Small Roadside Signs.

Concrete for sign foundations is designated as "Miscellaneous Concrete." It will be accepted based on a minimum 7-day flexural strength of 280 PSI. The slump is to be no greater than 4 inches.

Use trowel to finish all foundations for a neat appearance. Remove all excess material.

Expanded foam foundations are not permitted.

Tighten the slip base and the locking collar as shown on Standard Sign Mounting Details for Small Signs. Do not tighten bolts greater than 80 foot-pounds, except to clean threads. Over-torque bolts to clean the threads of any galvanization that might cause an incorrect torque reading; then, loosen the nuts and tighten to the required torque of 80 foot-pounds. Tighten bolts incrementally in a sequential manner such that the load is applied uniformly to the locking collar.

For splices in small signs, use bolts as shown on Details A and B on the Sign Mounting Details for Small Roadside Signs.

Cut the bottom of all posts level.

For sign types which design details are not shown on these plans, fabricate according to the "*Standard Highway Sign Designs for Texas*."

Removed material that is deemed salvageable (signs and posts) will be the property of TxDOT. Deliver salvageable material to the TxDOT Maintenance Office. Remove unsalvageable material.

Existing signs remain in place until the proposed signpost assembly is completed and ready for sign installation.

Maintain existing roadside signs within this project's limits during this Contract. In order to accommodate the grading or other operations, relocate these signs and assemblies onto temporary supports in accordance with the TMUTCD and as directed by the Engineer. This work will be paid as "Relocate Small Roadside Sign Supports and Assemblies." Moving the temporary supports for accommodating work and relocating for subsequent phases will not be paid directly. The existing sign assemblies requiring relocation to a temporary support must be approved by the Engineer.

ITEM 658: DELINEATOR AND OBJECT MARKER ASSEMBLIES

The delineator assembly Type C, Class A (D-SW) and (D-SY) are to be single delineators (Class I) attached to a flat, plastic bracket to facilitate the mounting of the delineator on top of

the bridge rail at the locations shown on the plans. Submit a sample for approval before ordering materials.

For all delineators and object markers, furnish a tubular post minimum of 2 inches diameter with a flat surface at least 3 inches wide and 15 inches long for delineator mounting meeting the requirements of DMS-4400. Use the Wedge Anchor Plastic System for ground-mounted delineators set in concrete as shown on the D&OM(1)-09 Standard. Submit one assembly or a material cut sheet to the Engineer for approval prior to installation.

ITEM 662: WORK ZONE PAVEMENT MARKINGS

Lane lines for transitions and detours will consist of raised pavement markers as shown for solid lines on the Barricade and Construction Standards, Work Zone Pavement Marking Details.

Paint and beads may be used for non-removable pavement markings.

ITEM 666: REFLECTORIZED PAVEMENT MARKINGS

Apply beads using a single drop application process. Use an application rate of 12 pounds per 100 square feet of thermoplastic pavement marking material.

The Engineer will verify the beginning and ending points of "NO PASS" zones.

Before the application of pavement markings, sufficiently clean pavement surfaces to remove all forms of contamination and loose materials, in accordance with Item 678, "Pavement Surface Preparation for Markings." This work will not be paid directly, but will be subsidiary to Item 666 "Reflectorized Pavement Markings."

Make all stop lines twenty-four (24) inches wide.

Pay Item for REFL PAV MRK TY I (W) (8″) (BRK) will be used for intersection turning lane channelizing markings as shown in the *Texas Manual on Uniform Traffic Control Devices*, Section 3B.08, Figure 3B-11c.

Remove markings at own expense that are not in alignment or sequence, as shown on the Standard sheets, as stated in the Specifications, or do not meet the Specification and/or approval of the Project Manager. Removal shall be in accordance with Item 677, "Eliminating Existing Pavement Markings and Markers," except for measurement and payment.

ITEM 668: PREFABRICATED PAVEMENT MARKINGS

Use Type C prefabricated pavement markings (TxDOT Spec DMS-8240) for all Word, Arrow, and RR Crossing markings.

ITEM 672: RAISED PAVEMENT MARKERS

Place TYPE II-C-R and TYPE I-C markers for lane lines on 80-foot centers, regardless of the conditions listed on the Pavement Markings Standard Details.

Existing raised pavement markers to be replaced will be removed at the same time that the new markers are placed (i.e. remove and replace in one operation). Existing raised pavement markers replaced by new markers will be removed in accordance with Item 677, "Eliminating Existing Pavement Markings, and Markers." Immediately fill the damaged area in the pavement due to the removal of existing markers with an approved bituminous material. This removal and backfill work will not be paid directly, but will be subsidiary to Item 672, "Raised Pavement Markers."

Before the application of pavement markers, sufficiently clean pavement surfaces to remove all forms of contamination and loose materials, in accordance with Item 678, "Pavement Surface Preparation for Markings." This work will not be paid directly, but will be subsidiary to Item 672, "Raised Pavement Markers."

Remove, at own expense, markings placed that are not in alignment or sequence, as shown on the Standard sheets, as stated in the Specifications, or do not meet the Specification and/or approval of the Project Manager. Removal shall be in accordance with Item 677, "Eliminating Existing Pavement Markings and Markers," except for measurement and payment.

Mount all raised pavement markers placed on concrete surfaces using an epoxy adhesive, in accordance with Article 672.3.

ITEM 677: ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS

Pay item for eliminating existing raised pavement markers is for operations of removal, only, with no marker replacement.

ITEM 730: ROADSIDE MOWING

Throughout the course of the project, when in the opinion of the Engineer, tall grass and weeds affect the safety of the public by restricting visibility, interfere with normal traffic flow, or appear unsightly, the Contractor shall be required to mow same. Final cleanup will include mowing of grass and weeds. This work will be paid by the acre.

Mowing cycles shall coincide with adjoining construction projects and adjoining segments maintained by contracted maintenance. The Contractor shall plan and schedule to perform the full width mowing cycle work under this Item as follows:

Urban Areas

- Approximately 3 times per year
- Mid May to mid June, August and to late November

The Engineer shall approve the actual beginning time of work for each cycle of work performed. The Contractor shall provide the Engineer two weeks advance notice before beginning actual work for each cycle.

ITEM 738: CLEANING AND SWEEPING HIGHWAYS

For sweeping operations, a vacuum pickup type broom shall be utilized.

Regular sweeping of dirt or mud due to construction operations from the travelways will not be paid directly, but will be subsidiary to the various bid items.

ITEM 740: GRAFFITI REMOVAL AND ANTI-GRAFFITI COATING

Anti-Graffiti coating (Permanent) TY III shall be applied to all concrete and all exposed faces of bent, abutments, railing, wingwalls and abutment riprap surfaces of the bridge structure both on top and underneath as directed by the Engineer.

Anti-Graffiti coating shall be Type III- Permanent, Water Cleanable. The color of coating shall be clear or translucent as approved by the District Landscape Architect.

Anti-Graffiti Coating Type III-Permanent, Water Cleanable:
Type III Coatings allow removal of the graffiti with low-pressure water wash.

The color must match Federal Standard 595B; color number 35630, unless otherwise shown in the plans. When the plans show another color, the color must match the color standard supplied by the Engineer. The plans may specify clear or translucent coating as a color.

Pressure wash requirements must not exceed 500 psi.

Coating must be washable with water at an ambient temperature of 50°F or higher.

Coating must allow for a minimum of ten cycles of graffiti removal.

Coating must be self-recoatable for the life of the coating.

The dry times of a 3-mil wet film of the coating must meet set-to-touch, 4-hr. maximum, and dry through, 24-hr. maximum when tested a 77°F in accordance with ASTM D1640.

ITEM 8251: REFLECTORIZED PAVEMENT MARKINGS

Apply beads using a single drop application process. Use an application rate of 12 pounds per 100 square feet of thermoplastic pavement marking material.

The Engineer will verify the beginning and ending points of "NO PASS" zones.

Before the application of pavement markings, sufficiently clean pavement surfaces to remove all forms of contamination and loose materials, in accordance with Item 678, "Pavement Surface Preparation for Markings." This work will not be paid directly, but will be subsidiary to Item 8251 "Reflectorized Pavement Markings."

Remove markings, at own expense, that are not in alignment or sequence as shown on the

Standard sheets, as stated in the Specifications, or do not meet the Specification and/or approval of the Project Manager. Removal shall be in accordance with Item 677, "Eliminating Existing Pavement Markings and Markers," except for measurement and payment.

A mobile retroreflectometer is not required for this project.

CONTROL : 0320-06-004
PROJECT : STP 2010(922)RGS
HIGHWAY : LP 363
COUNTY : BELL

TEXAS DEPARTMENT OF TRANSPORTATION

GOVERNING SPECIFICATIONS AND SPECIAL PROVISIONS

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT ARE IDENTIFIED AS FOLLOWS:

STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION JUNE 1, 2004. STANDARD SPECIFICATIONS ARE INCORPORATED INTO THE CONTRACT BY REFERENCE.

ITEMS 1 TO 9 INCL., GENERAL REQUIREMENTS AND COVENANTS
ITEM 100 PREPARING RIGHT OF WAY (103)
ITEM 105 REMOVING STABILIZED BASE AND ASPHALT PAVEMENT
ITEM 110 EXCAVATION (132)
ITEM 132 EMBANKMENT (100)(204)(210)(216)(400)
ITEM 160 TOPSOIL
ITEM 164 SEEDING FOR EROSION CONTROL (162)(166)(168)
ITEM 168 VEGETATIVE WATERING
ITEM 169 SOIL RETENTION BLANKETS
ITEM 275 CEMENT TREATMENT (ROAD-MIXED) (132)(204)(210)(216)(247)(300)(310)(520)
ITEM 276 CEMENT TREATMENT (PLANT-MIXED) (204)(210)(216)(247)(300)(310)(520)
ITEM 305 SALVAGING, HAULING, AND STOCKPILING RECLAIMABLE ASPHALT PAVEMENT
ITEM 316 SURFACE TREATMENTS (210)(300)(302)(520)
ITEM 341 DENSE-GRADED HOT-MIX ASPHALT (QC/QA) (210)(300)(301)(320)(520)(585)
ITEM 346 STONE-MATRIX ASPHALT (210)(300)(301)(320)(340)(520)(585)
ITEM 351 FLEXIBLE PAVEMENT STRUCTURE REPAIR (132)(204)(247)(260)(263)(275)(276)(292)(310)(316)(330)(334)(340)
ITEM 360 CONCRETE PAVEMENT (300)(420)(421)(438)(440)(529)(585)
ITEM 368 CONCRETE PAVEMENT TERMINALS (247)(260)(276)(292)(300)(349)(360)(400)(420)(421)(438)(440)
ITEM 400 EXCAVATION AND BACKFILL FOR STRUCTURES (132)(401)(420)(421)
ITEM 402 TRENCH EXCAVATION PROTECTION
ITEM 416 DRILLED SHAFT FOUNDATIONS (420)(421)(440)(448)
ITEM 420 CONCRETE STRUCTURES (400)(404)(421)(426)(427)(438)(440)(441)(448)

ITEM 422 REINFORCED CONCRETE SLAB (420)(421)(424)(426)(430)(440)
ITEM 423 RETAINING WALLS (110)(132)(400)(420)(421)(424)(440)(445)(458)(556)
ITEM 425 PRECAST PRESTRESSED CONCRETE STRUCTURAL MEMBERS (420)(421)(424)(426)(427)(434)(440)(442)
ITEM 428 CONCRETE SURFACE TREATMENT (427)
ITEM 432 RIPRAP (247)(420)(421)(427)(431)(440)
ITEM 450 RAILING (420)(421)(424)(440)(441)(442)(445)(446)(448)(540)
ITEM 454 BRIDGE EXPANSION JOINTS (429)(442)
ITEM 462 CONCRETE BOX CULVERTS AND STORM DRAINS (400)(420)(421)(424)(440)(464)(476)
ITEM 464 REINFORCED CONCRETE PIPE (400)(476)
ITEM 465 MANHOLES AND INLETS (400)(420)(421)(440)(471)
ITEM 466 HEADWALLS AND WINGWALLS (400)(420)(421)(430)(440)(464)
ITEM 467 SAFETY END TREATMENT (400)(420)(421)(430)(432)(440)(445)(460)(464)
ITEM 479 ADJUSTING MANHOLES AND INLETS (400)(421)(465)
ITEM 496 REMOVING STRUCTURES (430)
ITEM 500 MOBILIZATION
ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING
ITEM 504 FIELD OFFICE AND LABORATORY
ITEM 506 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS (432)(556)
ITEM 508 CONSTRUCTING DETOURS
ITEM 512 PORTABLE CONCRETE TRAFFIC BARRIER (420)(421)(424)(440)(442)
ITEM 514 PERMANENT CONCRETE TRAFFIC BARRIER (400)(416)(420)(421)(424)(440)(442)(448)
ITEM 529 CONCRETE CURB, GUTTER, AND COMBINED CURB AND GUTTER (360)(420)(421)(440)
ITEM 530 INTERSECTIONS, DRIVEWAYS, AND TURNOUTS (247)(260)(263)(275)(276)(292)(316)(330)(334)(340)(360)(421)(440)
ITEM 540 METAL BEAM GUARD FENCE (421)(441)(445)(529)(542)(544)
ITEM 542 REMOVING METAL BEAM GUARD FENCE
ITEM 544 GUARDRAIL END TREATMENTS
ITEM 545 CRASH CUSHION ATTENUATORS (421)
ITEM 644 SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES (421)(440)(441)(442)(445)(634)(636)(643)(656)
ITEM 658 DELINEATOR AND OBJECT MARKER ASSEMBLIES (445)
ITEM 662 WORK ZONE PAVEMENT MARKINGS (666)(668)(672)(677)
ITEM 666 REFLECTORIZED PAVEMENT MARKINGS (316)(318)(662)(677)(678)
ITEM 668 PREFABRICATED PAVEMENT MARKINGS
ITEM 672 RAISED PAVEMENT MARKERS (677)(678)
ITEM 677 ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS (300)(302)(316)
ITEM 678 PAVEMENT SURFACE PREPARATION FOR MARKINGS
ITEM 730 ROADSIDE MOWING
ITEM 734 LITTER REMOVAL
ITEM 738 CLEANING AND SWEEPING HIGHWAYS
ITEM 740 GRAFFITI REMOVAL AND ANTI-GRAFFITI COATING (427)(446)

SPECIAL PROVISIONS: SPECIAL PROVISIONS WILL GOVERN AND TAKE

---------- PRECEDENCE OVER THE SPECIFICATIONS ENUMERATED HEREON WHEREVER IN CONFLICT THEREWITH.

REQUIRED CONTRACT PROVISIONS, FEDERAL-AID CONSTRUCTION CONTRACTS (FORM FHWA 1273, MARCH 1994)
WAGE RATES
SPECIAL PROVISION "PARTNERING" (000---002)
SPECIAL PROVISION "NOTICE TO ALL BIDDERS" (000---003)
SPECIAL PROVISION "NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY" (000---004)
SPECIAL PROVISION "STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS" (000---006)
SPECIAL PROVISION "CERTIFICATION OF NONDISCRIMINATION IN EMPLOYMENT" (000---009)
SPECIAL PROVISION "DEPARTMENT DIVISION MAILING AND PHYSICAL ADDRESS" (000---011)
SPECIAL PROVISION "DISADVANTAGED BUSINESS ENTERPRISE IN FEDERAL-AID CONSTRUCTION" (000---461)
SPECIAL PROVISION "NOTICE OF CHANGES TO U.S. DEPARTMENT OF LABOR REQUIRED PAYROLL INFORMATION" (000--1483)
SPECIAL PROVISION "SCHEDULE OF LIQUIDATED DAMAGES" (000--1493)
SPECIAL PROVISION "ON-THE-JOB TRAINING PROGRAM" (000--1676)
SPECIAL PROVISION TO ITEM 1 (001---011)
SPECIAL PROVISION TO ITEM 2 (002---017)
SPECIAL PROVISION TO ITEM 3 (003---033)
SPECIAL PROVISION TO ITEM 4 (004---017)
SPECIAL PROVISION TO ITEM 5 (005---004)
SPECIAL PROVISION TO ITEM 6 (006---030)
SPECIAL PROVISIONS TO ITEM 7 (007---213)(007---639)(007---717)
SPECIAL PROVISION TO ITEM 8 (008---084)
SPECIAL PROVISIONS TO ITEM 9 (009---009)(009---015)
SPECIAL PROVISION TO ITEM 100 (100---002)
SPECIAL PROVISION TO ITEM 164 (164---002)
SPECIAL PROVISION TO ITEM 166 (166---001)
SPECIAL PROVISION TO ITEM 169 (169---002)
SPECIAL PROVISION TO ITEM 247 (247---033)
SPECIAL PROVISION TO ITEM 260 (260---002)
SPECIAL PROVISION TO ITEM 275 (275---002)
SPECIAL PROVISION TO ITEM 302 (302---010)
SPECIAL PROVISION TO ITEM 316 (316---016)
SPECIAL PROVISION TO ITEM 330 (330---001)
SPECIAL PROVISION TO ITEM 340 (340---003)
SPECIAL PROVISION TO ITEM 341 (341---024)
SPECIAL PROVISION TO ITEM 360 (360---003)
SPECIAL PROVISION TO ITEM 420 (420---002)
SPECIAL PROVISION TO ITEM 421 (421---035)
SPECIAL PROVISION TO ITEM 424 (424---002)
SPECIAL PROVISION TO ITEM 425 (425---001)
SPECIAL PROVISION TO ITEM 428 (428---001)
SPECIAL PROVISION TO ITEM 429 (429---008)
SPECIAL PROVISION TO ITEM 431 (431---001)
SPECIAL PROVISION TO ITEM 434 (434---003)
SPECIAL PROVISION TO ITEM 440 (440---002)

SPECIAL PROVISION TO ITEM 441 (441---006)
SPECIAL PROVISION TO ITEM 442 (442---016)
SPECIAL PROVISION TO ITEM 448 (448---002)
SPECIAL PROVISION TO ITEM 450 (450---001)
SPECIAL PROVISION TO ITEM 464 (464---003)
SPECIAL PROVISION TO ITEM 465 (465---001)
SPECIAL PROVISION TO ITEM 500 (500---005)
SPECIAL PROVISION TO ITEM 502 (502---033)
SPECIAL PROVISION TO ITEM 506 (506---011)
SPECIAL PROVISION TO ITEM 512 (512---002)
SPECIAL PROVISION TO ITEM 514 (514---002)
SPECIAL PROVISION TO ITEM 540 (540---015)
SPECIAL PROVISION TO ITEM 636 (636---014)
SPECIAL PROVISION TO ITEM 643 (643---001)
SPECIAL PROVISION TO ITEM 672 (672---034)
SPECIAL PROVISION TO ITEM 740 (740---001)
SPECIAL PROVISION TO SPECIAL SPECIFICATION ITEM 8251 (8251--005)

SPECIAL SPECIFICATIONS:

ITEM 8094 MOBILE RETROREFLECTIVITY DATA COLLECTION FOR PAVEMENT MARKINGS
ITEM 8251 REFLECTORIZED PAVEMENT MARKINGS WITH RETROREFLECTIVE REQUIREMENTS (316)(318)(502)(677)(678)(8094)

GENERAL: THE ABOVE-LISTED SPECIFICATION ITEMS ARE THOSE UNDER WHICH PAYMENT IS TO BE MADE. THESE, TOGETHER WITH SUCH OTHER PERTINENT ITEMS, IF ANY, AS MAY BE REFERRED TO IN THE ABOVE-LISTED SPECIFICATION ITEMS, AND INCLUDING THE SPECIAL PROVISIONS LISTED ABOVE, CONSTITUTE THE COMPLETE SPECIFICATIONS FOR THIS PROJECT.

SPECIAL PROVISION

740---001

Graffiti Removal and Anti-Graffiti Coating

For this project, Item 740, "Graffiti Removal and Anti-Graffiti Coating," of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Article 740.2. Materials is voided and replaced by the following:

Furnish paint meeting the requirements of Item 446, "Cleaning and Painting Steel," for steel structures. Furnish concrete paint or opaque sealer in accordance with Article 427.2.A. 1 or 2, for concrete structures unless otherwise shown on the plans. Furnish anti-graffiti coating of the type specified, in accordance with DMS-8111, "Anti-Graffiti Coatings." Furnish graffiti removal chemicals as approved.